Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A treatment system comprising:

a point of entry;

a liquid reservoir having an inlet fluidly connected to the point of entry, and an outlet;

an electrochemical device comprising a first compartment with a first compartment outlet and a first compartment inlet, and a second compartment with a second compartment inlet and a second compartment outlet;

a first liquid circuit fluidly connecting the first compartment inlet to the first compartment outlet through [[a]]the liquid reservoir and a first pump; and

a second liquid circuit fluidly connecting the second compartment outlet to the second compartment inlet through a second pump; and

a point of use fluidly connected to the outlet of the liquid reservoir.

2. (Previously Presented) The treatment system of claim 1, further comprising a first filter device fluidly connected to the first pump and to the liquid reservoir.

3. (Original) The treatment system of claim 2, further comprising a second filter device fluidly connected to the second pump.

4. (Canceled) ~~The treatment system of claim 1, further comprising a point of entry fluidly connected to the liquid reservoir.~~

5. (Previously Presented) The treatment system of claim 1, further comprising a water distribution system fluidly connected to the liquid reservoir.

6. (Canceled) ~~The treatment system of claim 1, further comprising a point of use fluidly connected to the liquid reservoir.~~

7. (Original) The treatment system of claim 1, further comprising a sensor measuring at least one operating parameter of the treatment system.

8. (Currently Amended) The treatment system of claim 1, further comprising a ~~fourth~~third liquid circuit fluidly connecting the liquid reservoir to the first compartment inlet and the first compartment outlet to the second compartment inlet.

9. (Currently Amended) The treatment system of claim 1, further comprising a post treatment system fluidly connected downstream of the electrochemical device and upstream of [[a]]the point of use.

10. (Currently Amended) A treatment system comprising:

an electrochemical device comprising a first compartment comprising a first compartment outlet and a first compartment inlet and a second compartment comprising a second compartment outlet and a second compartment inlet, the electrochemical device fluidly ~~connected~~connectable to a point of entry;

a water reservoir fluidly connected to the point of entry and to at least one of the first compartment inlet and the second compartment inlet;

a first pump fluidly connectable to the first compartment outlet and to the first compartment inlet;

a second pump fluidly connectable to the second compartment outlet and to the second compartment inlet; ~~and~~

a circulation line fluidly connectable to at least one of the first or second compartment outlets; and

a point of use fluidly connected to an outlet of the water reservoir.

11. (Original) The treatment system of claim 10, wherein the circulation line is fluidly connectable to at least one of the first and second pumps.

12. (Original) The treatment system of claim 10, further comprising a first valve fluidly connecting the circulation line to the first pump.

13. (Original) The treatment system of claim 12, further comprising a second valve fluidly connecting the circulation line to the second pump.

14. (Original) The treatment system of claim 10, further comprising a first valve fluidly connecting the first compartment outlet to the circulation line.

15. (Original) The treatment system of claim 14, further comprising a second valve fluidly connecting the second compartment outlet to the circulation line.

16. (Previously Presented) The treatment system of claim 15, further comprising a controller configured to actuate at least one of the first and second valves.

17. (Previously Presented) The treatment system of claim 10, further comprising a sensor configured to measure at least one operating parameter of the treatment system.

18. (Currently Amended) The treatment system of claim 10, further comprising a water distribution system fluidly ~~connected to~~connecting the point of use and the water reservoir.

19. (Original) The treatment system of claim 10, further comprising a disinfectant source fluidly connectable to at least one of the electrochemical device, the circulation line, the first pump, and the second pump.

20. (Currently Amended) A method of treating a liquid comprising:

establishing a first liquid circuit having liquid to be treated flowing therein from a reservoir to a first compartment inlet of an electrochemical device through a first pump;

establishing a second liquid circuit having a concentrating liquid flowing therein from a second compartment outlet of the electrochemical device to a second compartment inlet through a second pump; ~~and~~

establishing a third liquid circuit having liquid to be treated flowing therein from the reservoir to the second compartment inlet through the second pump; and

delivering at least a portion of liquid from the reservoir to a point of use.

21. (Original) The method of claim 20, further comprising establishing a fourth liquid circuit having the concentrating liquid flowing therein from the first compartment outlet to the first compartment inlet through the first pump.

22. (Original) The method of claim 20, further comprising applying an electric field across the electrochemical device.

23. (Original) The method of claim 22, further comprising reversing a polarity of the applied electric field after establishing the third liquid circuit.

24. (Original) The method of claim 20, wherein establishing the third liquid circuit comprises actuating a first valve to direct the liquid to be treated to flow through the second pump.

25. (Original) The method of claim 24, further comprising actuating a second valve to direct the concentrating liquid to flow through the first pump.

26. (Original) The method of claim 20, further comprising measuring at least one of a pressure, temperature, flow rate, pH, conductivity and composition of the liquid.

27. (Original) The method of claim 20, further comprising flushing the first and second compartments with the treated liquid.

28. (Original) The method of claim 20, further comprising flushing at least one of the first and second pumps with the treated liquid.

29. (Original) The method of claim 20, further comprising establishing a fourth liquid circuit having liquid from the reservoir flowing therein from the reservoir to the first and second compartments through the first and second pumps.

30. (Original) The method of claim 29, wherein the liquid from the reservoir has a negative LSI.

31. (Canceled) ~~The method of claim 20, further comprising delivering at least a portion of the treated liquid to a point of use.~~

32. (Original) The method of claim [[31]]20, further comprising post treating the treated liquid prior to delivering the treated liquid to the point of use.

33. (Original) The method of claim 20, further comprising disinfecting at least a portion of any component of any of the first liquid circuit, the second liquid circuit and the third liquid circuit.

34. (Withdrawn) A method of treating water comprising:

introducing at least a portion of water to be treated into a reservoir;

passing at least a portion of water to be treated through a first compartment of an electrodeionization device through a first pump to produce treated water;

introducing at least a portion of the treated water into the reservoir;

circulating a concentrating stream through a second compartment of the electrodeionization device through a second pump; and

circulating the concentrating stream through the second compartment through the first pump

applying an electric field through the electrodeionization device; and

reversing a polarity of the electric field.

35. (Withdrawn) The method of claim 34, further comprising passing at least a portion of the water to be treated through the second pump.

36. (Withdrawn) The method of claim 34, further comprising flushing the first compartment while flushing the second compartment.

37. (Withdrawn) The method of claim 34, further comprising flushing the first and second compartments and the first and second pumps with treated water sequentially.

38. (Withdrawn) The method of claim 34, further comprising passing the water from the reservoir through the first compartment after passing the water through the second compartment.

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)

46. (Canceled)

47. (Canceled)

48. (Canceled)

49. (Currently Amended) A method of facilitating water purification comprising:

providing an electrochemical device comprising a first compartment and a second compartment;

providing a first pump fluidly connectable to at least one of a water reservoir, a first compartment outlet and a first compartment inlet;

providing a second pump fluidly connectable to at least one of the water reservoir, a second compartment outlet and a second compartment inlet; ~~and~~

providing a circulation line fluidly connectable to at least one of the first and second compartment outlets; and

fluidly connecting a point of use to the water reservoir.

50. (Canceled)

51. (Canceled)

52. (Withdrawn) A water treatment system for treating water from a point of entry, comprising:

a pressurizable reservoir having a reservoir inlet fluidly connectable to the point of entry, and a reservoir outlet fluidly connectable to a point of use;

an electrodeionization device fluidly connectable to the point of entry and to the point of use, the electrodeionization device having a first compartment with a first compartment inlet and a first compartment outlet, and a second compartment with a second compartment inlet and a second compartment outlet;

a circulation line fluidly connectable to the electrodeionization device;

a first valve fluidly connectable to the first compartment inlet and to at least one of the reservoir outlet and the circulation line;

a second valve fluidly connectable to the first compartment outlet and to at least one of the reservoir inlet and the circulation line; and

a controller configured to actuate the first valve to fluidly connect the reservoir outlet to the first compartment inlet.

53. (Withdrawn) The water treatment system of claim 52, further comprising a filter fluidly connected downstream from the reservoir outlet and upstream of at least one of the first compartment inlet and the second compartment inlet.

54. (Withdrawn) The water treatment system of claim 52, wherein the controller is further configured to actuate the second valve to fluidly connect the first compartment outlet to the reservoir inlet.

55. (Withdrawn) The water treatment system of claim 52, further comprising:

a third valve fluidly connectable to the second compartment inlet and to at least one of the reservoir outlet and the circulation line; and

a fourth valve fluidly connectable to the second compartment outlet and at least one of the reservoir inlet and the circulation line.

56. (Withdrawn) The water treatment system of claim 55, wherein the controller is further configured to actuate the second valve to fluidly connect the first compartment outlet to reservoir inlet; to actuate the third valve to fluidly connect the second compartment inlet to the circulation line; and to actuate the fourth valve to fluidly connect the second compartment outlet to the circulation.

57. (Withdrawn) A household water treatment system for treating water from a point of entry comprising:

a household water distribution system fluidly connected to at least one point of use selected from the group consisting of a sink faucet, a shower head, and a dishwashing machine;

a pressurized water reservoir fluidly connected to the point of entry and to the household water distribution system;

an electrodeionization device fluidly connected to the pressurized water reservoir, the electrodeionization device comprising a first compartment and a second compartment;

means for flowing water from the pressurized water reservoir to the first compartment and for circulating flow of a liquid through the second compartment;

a controller configured to regulate at least one operating condition of the means for flowing water from the pressurized water reservoir to the first compartment and for circulating flow of the liquid through the second compartment.

58. (Withdrawn) The household water treatment system of claim 57, further comprising at least one water property sensor configured to measure at least one physical property of water in the household treatment system selected from the group consisting of turbidity and alkalinity.

59. (Withdrawn) The household water treatment system of claim 58, wherein the sensor is operatively coupled to the controller, and wherein the controller is further configured to

adjust at least one operating condition of the electrodeionization device based on the at least one measured physical property.

60. (Withdrawn) The household water treatment system of claim 59, further comprising at least one carbon filter fluidly connected downstream from the pressurized water reservoir and upstream of one of the first and second compartments.

61. (Withdrawn) The household water treatment system of claim 57, wherein the pressurized reservoir comprises a heating coil.